



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

PRO/023/010

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

November 4, 1986

Mr. Marvin Berg
Quarry Superintendent
Southwestern Portland Cement Company
P.O. Box 529
Lyons, Colorado 80540

FILE COPY

Dear Mr. Berg:

Re: Mining and Reclamation Plan Permit Application, Navajo Sandstone Quarry, PRO/023/010, Juab County, Utah

The Division of Oil, Gas, and Mining has completed the technical review of the revised permit application submitted in response to our initial completeness review. The Division will grant its tentative approval of the Navajo Sandstone Quarry, and prepare a public notice which will be forwarded to the newspaper agency for appropriate publishing, when the following conditions are met:

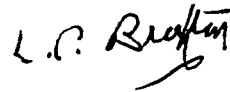
1. The operator must submit a notarized request for a highwall reclamation variance and proof of long term highwall stability (blank form enclosed).
2. A written commitment to perform the required baseline vegetation survey during the spring or early summer of 1987 and submit the survey results for the mine site no later than August 1, 1987. The Division can assist you in making this baseline vegetation survey if you so desire.
3. Southwestern Portland Cement must provide the Division with the form of reclamation surety which will be filed. Copies of acceptable reclamation bonding forms are attached.

The reclamation surety must be filed with this office before final approval and a permit for the operation can be issued by this Division. A copy of the Division's preliminary bond estimate for reclamation of the quarry is enclosed. The Division typically computes the bond for a five year permit term.

Page 2
Mr. Marv Berg
PR0/023/010
November 4, 1986

The operator may choose to bond for a shorter or longer time period if desired. Thank you for your patience and cooperation in completing this permitting action. Should you have specific questions or need additional information, please contact me or D. Wayne Hedberg of the permitting staff.

Sincerely,



L. P. Braxton
Administrator
Mineral Resource Development
and Reclamation Program

DWH:jvb
Enclosures
cc: Lowell Braxton Lynn Kunzler
 Frank Filas David Wham
0953R-1

Bond Estimate
Navajo Sand Stone Quarry
By Frank Filas, 10-9-86

1.	Earthwork and Grading	\$32,020
2.	Revegetation	3,980
3.	Safety and Fencing	6,340
4.	Maintenance and Monitoring	3,140
	Subtotal	\$45,480
5.	Ten Percent Contingency	4,550
Total in 1986\$		\$50,030

Bond Period
(Inflation at 1.62% per year)

Time(Years)	Year	Bond Amount	Time(Years)	Year	Bond Amount
1	1987	\$50,840	5	1991	\$54,220
2	1988	51,600	10	1996	58,750
3	1989	52,500	15	2001	63,670
4	1990	53,350	20	2006	68,990

Bond Estimate
Navajo Sand Stone Quarry
By Frank Filas, 10-9-86

1. Earthwork and Grading, Cost= \$32,020

- A. Grade spillage and waste material in quarry area
16.6 acres, D-8L dozer at 1.5 acres/hour
11 hours at \$171/hour = \$1880
- B. Scarification of quarry area
16.6 acres, D-8L dozer with draw bar at 1.5 acre/hour
11 hours at \$184/hour = \$2020
- C. Remove 6 inches of gravel from road and rip road base
1 acre, D-8L dozer with ripper, 615 cat scraper
8 hours at \$184/hour & 8 hours at \$137/hour = \$2570
- D. Spread 15,000 cubic yards of topsoil over road and quarry area
18 acres, 6 inches deep
D-8L dozer, 56 hours at \$171/hour = \$9580
615 scraper, 96 hours at \$137/hour = \$13,150
12 G motor grader, 30 hours at \$94/hour = \$2,820
Total cost for topsoil = \$25,550

2. Revegetation, Cost = \$3,980

- A. Disc and seed 18 acres
farm tractor, 18 hours at \$50/hour = \$900
- B. Cost of seed and fertilizer
18 acres at \$171/acre = \$3080

3. Safety and Fencing, Cost = \$6340

- A. Erect warning signs and 3000 feet of fence
Two laborers, 600 feet per day
40 hours at \$46/hour = \$1840
- B. Cost of fence and signs
3000 feet at \$1.50/foot = \$4,500

4. Maintenance and monitoring, Cost = \$3,140

- A. Monitoring, three year period
four site visits per year at four hours/visit
48 hours at \$33/hour = \$1,580
- B. Maintenance, revegetate 20 percent of area
 - i) Repair rills and gullies, reseed
Farm tractor, 8 hours at \$50/hour = \$400
 - ii) Seed and hay mulch cost
3.6 acres at \$321/acre = \$1160

Equipment and Labor Costs
Navajo Sandstone Quarry

The heavy equipment weekly rental and operating costs are from the Rental Rate Blue Book. Labor and operator costs are from the 1986 Means Site Cost Data handbook.

Equipment Cost

Equipment	Rental Cost per hour	Maintenance, Fuel per hour	Operator per hour	Total per hour
12 G Motor Grader	\$50.75	\$13.40	\$29.85	\$95.00
615 Cat Scraper	81.12	26.45	29.85	137.42
D-8L Dozer	108.75	32.10	29.85	170.70
Farm Tractor	10.00	3.00	28.20	41.20

Add \$100 a day for rental of a ripper or drawbar. Add \$70 a day for rental of a disc and seeder.

Labor Cost

Foreman	\$32.85/hr
Laborer	23.05/hr
Heavy Equip. Operator	29.85/hr
Light Equip. Operator	28.20/hr

Labor costs includes benefits and subcontractors profit.